What is claimed is:

1. A chip-on-film package for image sensor comprising:

a chip-on-film (COF) film including an electrically insulating layer and a plurality of metal traces, the insulating layer having an upper surface, a lower surface and at least an opening, each metal trace having a connect pad, the connect pads being disposed around the opening on the upper surface;

an image sensing chip being mounted on the upper surface of the COF film, the image sensing chip having an active surface, the active surface includes an image sensing region being aligned with the opening, the image sensing chip having a plurality of flip-chip bumps at perimeter of the active surface, the flip-chip bumps being electrically connected with the connect pads; and

a transparent glass bonded to the lower surface of the COF film corresponding to the opening so as to form a hermetic gap between the transparent glass and the image sensing chip.

2. The package in accordance with claim 1, wherein the opening is larger than the image sensing region of the image sensing chip but smaller than the active surface.

3. The package in accordance with claim 2, further comprising a filling material formed on the upper surface of the COF film to fill around the opening, thereby to seal the gap.

4. The package in accordance with claim 3, wherein the filling material is an anisotropic conductive paste (ACP) or non-conductive paste (NCP).

5. The package in accordance with claim 3, wherein the filling material is an anisotropic conductive film (ACF) or non-conductive film (NCF).

6. The package in accordance with claim 3, wherein the filling material is a thermosetting adhesive or UV adhesive formed by dispensing.

7. The package in accordance with claim 1, wherein the metal traces are formed on the upper surface of the electrically insulating layer.

8. The package in accordance with claim 1, wherein a metal layer is formed over the connect pads.

9. A method for making a chip-on-film package for image sensor comprising the steps of:

providing a chip-on-film (COF) film including an electrically insulating layer and a plurality of metal traces, the insulating layer having an upper surface, a lower surface and at least an opening, each metal trace having a connect pad, the connect pads being disposed around the opening on the upper surface;

mounting an image sensing chip on the upper surface of the COF film, the image sensing chip having an active surface, the active surface includes an image sensing region being aligned with the opening, the image sensing chip having a plurality of flip-chip bumps at perimeter of the active surface, the flip-chip bumps being electrically connected with the connect pads; and

bonding a transparent glass to the lower surface of the COF film corresponding to the opening so as to form a hermetic gap between the transparent glass and the image sensing chip.

10. The method in accordance with claim 9, wherein the opening is larger than the image sensing region of the image sensing chip but smaller than the active surface.

11. The method in accordance with claim 10, further comprising: the step of forming a filling material on the upper surface of the COF film to fill around the opening, thereby to seal the gap.

12. The method in accordance with claim 11, wherein the filling material is an anisotropic conductive paste (ACP) or non-conductive paste (NCP).

13. The method in accordance with claim 11, wherein the filling material is an anisotropic conductive film (ACF) or non-conductive film (NCF).

14. The method in accordance with claim 11, wherein the filling material is a thermosetting adhesive or UV adhesive formed by dispensing.

15. The method in accordance with claim 9, wherein the metal traces are formed on the

upper surface of the electrically insulating layer.

16. The method in accordance with claim 9, wherein a metal layer is formed over the connect pads.